

ESSAY
ON
PHYSICK.

OR,
AN ATTEMPT to Revive the
PRACTICE of the ANTIENTS.

WITH SOME
GENERAL OBSERVATIONS
ON
ANIMAL MECHANICS

AND THE
MATERIA MEDICA.

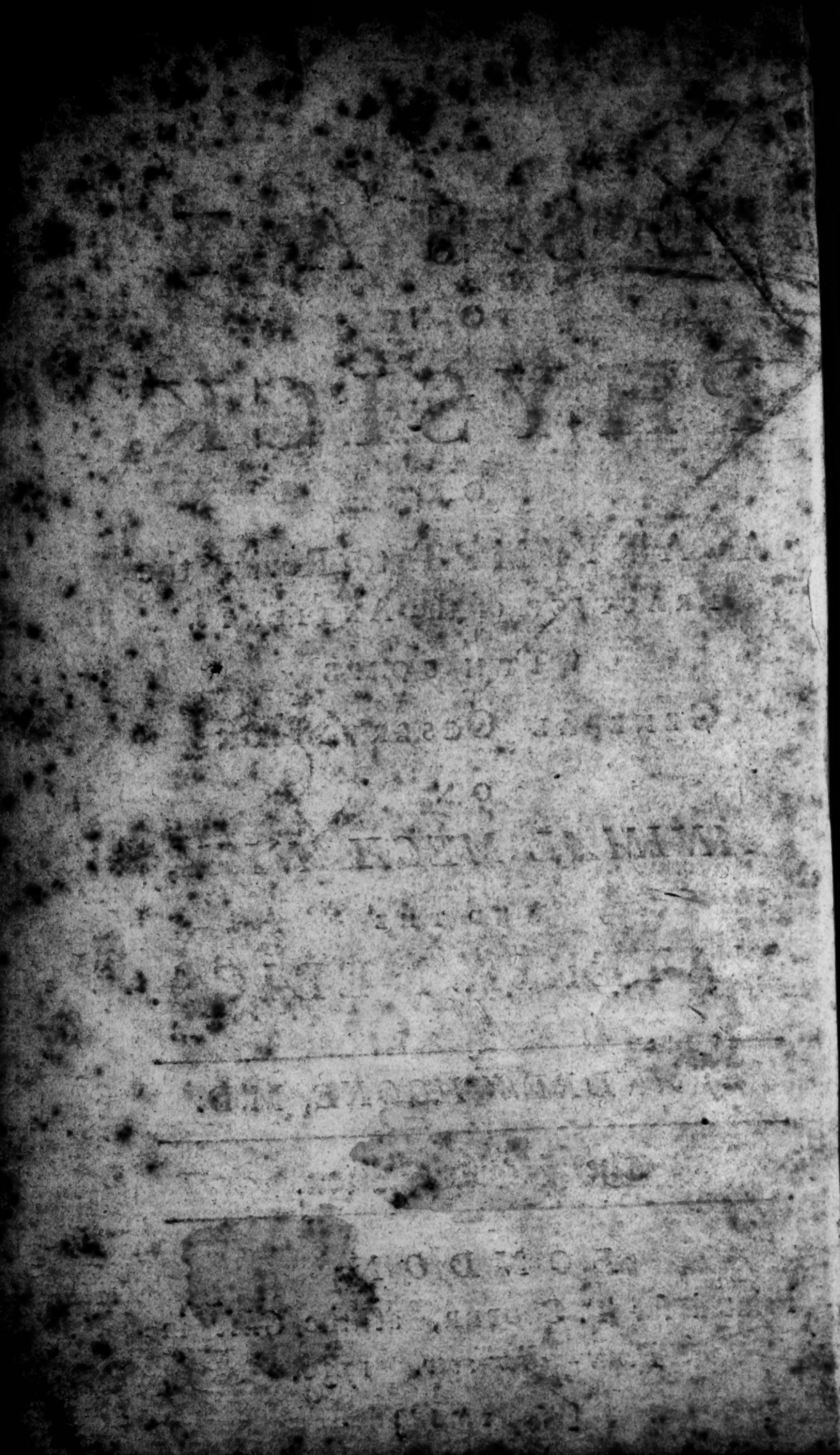
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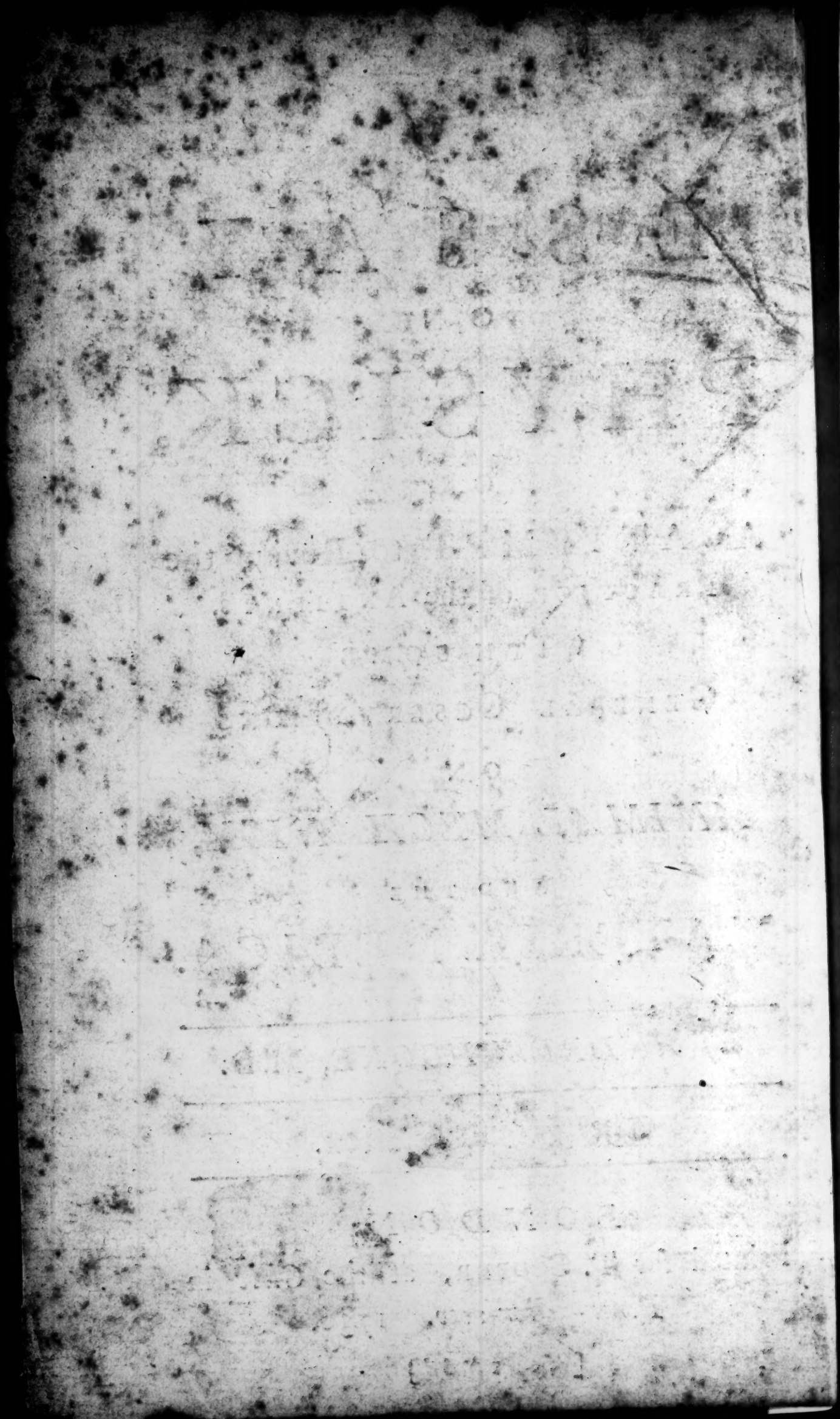
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P H Y S I C K.

I SHALL not trouble the Reader with the Occasion of the following Essay, or make any Apology for publishing it; the Subject of it is too Important to need the latter, and the former is a matter of no Consequence to the Publick: and as I am not in humour, at present, to compliment either my Self or Others, and have neither leisure nor inclination to be Impertinent, I shall directly fall on my Subject, without farther Preface or Dedication.





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'TIS a matter of Fact beyond dispute in the History of Physick, as far as we have any remaining Records of it, from its first Rise to this Day, that the *Materia Medica* has still grown more and more Bulky in every Age. From what Causes this arose, and what Effects it has produced, will be farther seen in the Course of this Essay.

THE most antient Physicians, as far as we can find, made use of but very few Remedies, and those few were entirely directed to the natural Evacuations; either to promote such as were Obstructed and Defective, or to check and restrain such as were Excessive and Redundant. And herein they exactly followed the Direction and Indications of Nature, by observing what Augmentation or Diminution of these Evacuations, brought on such and such morbid Symptoms, and by what ways and means they were removed and carried off, when the whole Process was left to Nature only, without any assistance or interposition of Art. And as this was the only proper foundation to erect a laudable *Praxis* upon; so in fact we find that the Medical Processes

cesses of the Antients, were always more or less successful, as they had a nearer or more remote relation, in their intention of Cure, to the Operations of unassisted Nature, and were directed, governed and conducted by this Principle.

WHILE Men thus contented themselves with knowing only what they could discover in Fact, confined their Reasonings to such Phænomena as occur'd by Observation and Experience, and were not ashamed to confess their Ignorance where they had no true Knowledge; they studyed Nature more successfully, and applyed their Knowledge to much better purpose: and Physick, as well as other Arts and Sciences, was considerably advanced and improved. But such was the Vanity of the Philosophers in pretending to search into the real Essences, intrinsick Constitutions and formal Causes of things, that, in this whimsical pursuit, they had not only set aside the true method of improving Knowledge by careful observation and just experiments, but introduced into its room a chimerical *Succedaneum*, which had no foundation in

Reason and Nature, but was merely Fictitious, Imaginary and Hypothetical. And thus while they thought to ransack the Bowels, and penetrate to the very Centre of Nature, they lost sight of the Surface, and could not perceive or judge of what was before their Eyes.

IF these dark and profound Inquisitors had confin'd their Enquirys and Lucubrations to matters of Speculation and Entertainment, and had not attempted to intrude their Whimsys and Reveries into common Life, and the useful Arts and Sciences; tho' no good had come of it, yet, on the other hand, no great harm would have been done: but the mischief lay here, that in every Age the Philosophy most in vogue, like a Torrent carry'd all before it, broke in upon Soul and Body at once, and settled not only the Faith of Christians, but the Practice of Physicians too: and hence we meet with in their turns *Platonists, Aristotelians, Cartesians, Corpuscularians, Specificians, and Rosicrucians* in Physick, as well as in Divinity. These all claimed the same implicit Faith and Obedience to their respective
 Creeds,

Creeds, Canons and Constitutions, equally denied the Right of private Judgment to all their Disciples, and, as far as lay in their power, discouraged and opposed all rational Freedom of Inquiry whatsoever. Thus a Physical as well as Theological Orthodoxy was ever insisted on, and a Man, in either case, was always reputed to die a Heretick, if he did not die in Form.

THE State of Physick thus stood for many Ages, on the authority of the Schools and whimsies of the Theorists. The study of Nature was almost wholly laid aside, and the good old way to Knowledge by Observations and Experiments, was superseded by Canons and Aphorisms founded on a meer verbal and unintelligible Philosophy; which from authority, only, obtain'd the name of first Principles, and of consequence were not to be disputed. And hence we find that the Practice of Physick in every succeeding Age became more and more uncertain and precarious, till it ran quite out of Character, and fell into the hands of Visionaries and Chemical Enthusiasts, who being for the most part Men of strong Imaginations.

Imaginations and weak Judgments, employ'd all their thoughts, and spent all their time, in search after the *Alkabeſt* or *Universal Medicine* ; and ſo eager were they in the purſuit of this Chimæra, that they not only neglected, but almoſt quite loſt, the little knowledge they had of particular Remedies.

AND that a proper Theory might not be wanting exactly ſuited to this whimſical and ridiculous Enterprize ; and finding it impracticable to adapt any one then in being, or to contrive a new one in the way of Reaſon and Nature ; they wiſely took it into their heads to introduce Machinery into Medicine, and to bring in Demons and ſupernatural Agents to their aſſiſtance. Thus the *Archæus* came into play and was conſtituted Superintendant over the whole Animal Oeconomy. This *Major-Domo*, as long as he was in good humour, executed his Commiſſion very faithfully, and guarded the Health and Safety of the whole Body ; ſo that all Danger was prevented, and every thing went on well. But no ſooner was he diſpleaſed and diſobliged, but he neglected
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his guard, Disease broke in upon the Constitution, and all was out of order ; and nothing in Nature could restore it again to its former Health and Rectitude, till the *Archæus* was pacified and appeased with the grand Secret or universal Medicine. Now this grand Secret, you must know, was a certain Chemical Preparation so exactly suited to his Taste, that it never fail'd, when timely administred by the Physician, to answer this intention : but when this peevish testy Phantom happened to be neglected too long, he then fell into a passion, became implacable, and in his rage and fury always destroyed the Patient.

THIS Scheme, as whimsical and visionary as it appears to be, has had for its Patrons and Defenders Gentlemen of the greatest name ; and I make no doubt but long e'er this time, some happy Genius or other in the Enthusiastick way would have carried this matter, if possible, into farther Fanaticism, had not Mathematical and Mechanical Learning, which began to be in fashion in the last Age, put People on a better method of enquiry and a juster way of reasoning.

ing. And yet notwithstanding, such is the prodigious and almost insuperable force of Prejudice and Education, that a great part of this Scheme is still retained, by Gentlemen who would think themselves ill used if their Mathematical or Mechanical Knowledge should be called in question, under the *Animal Spirits*, notion of to whom they have assigned much the same Province and Powers, as was done to the *Archæus* before; with this additional absurdity, that these *Animal Spirits* have been treated as mechanical and intelligent Agents at the same time: of which any one may be convinced, who shall think it worth his while to look into and examine the several Hypotheses on this Subject.

AND tho' it must be owned, that great advances and improvements have been since made, by the Moderns, in natural Knowledge, yet 'tis much to be wish'd that a better method had been taken in the application of this to the Animal Oeconomy, the Practice of Physick, and the Cure of Diseases. But such has been the hard fate of this Profession, that amidst all other advances Physick

sick has been so very little improved, that we have but one *Book* in the World, as far as I know, wherein any general Attempt has been made to apply the true Philosophy of Nature to the *Animal Oeconomy* and the *Materia Medica*; and this in my opinion has been executed with such success by the Ingenious Author of *the Philosophical Principles of Medicine*, that the Intelligent unprejudiced Reader may promise himself to meet, therein, with almost every thing that is valuable in the *Theory* and *Practice* of Physick; erected into one consistent System, founded on indisputable Principles, and judiciously drawn out into all its useful Corollaries and Consequences. Nay, 'tis a Truth but too plain in fact, that in general we are much declined from the more simple and natural methods of cure made use of by the *Antients*; and as this has been chiefly owing to our neglecting the true rational Indications and Intentions of Cure, so instead of applying to this as Nature would direct us, we have been, and still are, continually amused with an infinite jumble of Medicines under the notion of *Specifick* Alteratives; as if, by a most unaccountable and unintelligible Transmutation,

the morbid Matter could be converted into good Blood and Humours, and retain'd in the Body without injury to the Constitution; and there were no need at all of throwing it off by any of the natural Evacuations. Which idle Conceit is without doubt the Bane of all rational Practice, and the common Cheat by which *Quacks*, *Empyricks* and Ignorant Pretenders, chowse and dupe People out of their Money and Lives.

Now in order to shew the Folly and Absurdity of this Notion, and to contribute what lies in my power towards reviving the more natural and rational Practice of the *Antients*, I shall in this Essay, under distinct Sections, consider the principal Operations of Medicines, and the manner in which they Act; and herein I shall confine my self to such *Simples* as are most useful and necessary in Practice, with due allowance for some choice of things, in the same general Intention, for the better accommodation of them to the Stomach and particular liking of the Patient: avoiding as much as possible all such philosophical Speculations, as have the least tendency to lead
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me beside my Design, or to draw me into any Considerations or Enquiries, concerning them, beyond their obvious *sensible Qualities* and *Effects*; which, in my opinion, is the true Boundary of all medicinal Knowledge, and the *Ne plus ultra* of the Physicians Empire.

S E C T. I.

Of Animal Mechanism.

IT would be impossible to give any rational Account of Diseases and their Cure, without a general knowledge of the Animal Oeconomy and the Method of Nature in preparing, digesting and secreting the several Liquors of the Glands, and the principal ends and uses for which they are intended. And as this can only be known by a careful observation of Facts and the method of Nature either in preserving Health, or in the Formation and Cure of Diseases, where there has been no Interposition of Art, and no Reasonings *à priori* or antecedent to the Facts themselves: so it is no wonder that the Theo-

rists, in all Ages, who deviated from this good old way of the *Antients*, and set out with other Views and on other Principles, bewildered themselves and their Followers, and never arrived at any one point of real and useful Knowledge, or made the least Advance or Improvement in the *Art* of *Healing*.

THE most antient Physicians, who were always the best Philosophers of their time, grounded their Curative Intentions, upon the most obvious and sensible Effects of Medicines, as they either promoted or restrained this or the other natural Evacuation, and thereby corrected any such Error either in Excess or Defect. And this most obvious and sensible Effect, visible to all By-standers or Observers, they called the *Virtue, Power* or *Property* of the Medicine; and herein they never expected or promised any sensible Effect in the Cure of Diseases, from insensible or unknown Causes; or, which is the same thing, they were not let into the Mystery of our Modern *Specifick* or *Corpuscularian* Philosophy; they did not understand the Magick of
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Curing Diseases, by *Occult Qualities* in Medicines, or of producing sensible Effects without sensible Causes.

BUT our Modern Writers upon Physick and the Cure of Diseases, have for the most part inverted this Order of Nature, by a most ungeometrical and immechanical Application of Geometry and Mechanism, to the Animal Structure and Oeconomy: And not a few of the great Masters and Leaders of the Faculty, have either made their own *Data*, assumed false Principles without Proofs, or reasoned Illogically, by drawing false Consequences from real Facts and just Principles. Of this I shall give some very pregnant and convincing Instances, that I may not be thought to talk at random, or to lay in a Charge against our Modern *Medico-Philosophers* without Ground or Reason: for tho' I love Truth, yet I hate any thing that looks like Malice and Defamation, and had much rather be convicted of Ignorance than Dishonesty.

I. THEN the *Antients* had observ'd, that the small parts of some sorts of matter,

rer, would attract and intimately unite or Incorporate with each other; while the Particles of other sort of matter, would naturally separate and disunite, and could not easily be Incorporated at all. Thus they observ'd that the Particles of *Salts* would readily dissolve in, and intimately mix and incorporate with *Water*, tho' they are Specifically heavier; and that *Oils* and *Sulphurs* would not do so, but, on the contrary, disunite, separate and repel each other, whatever their different Specifick Gravities might be.

THEY observ'd likewise in the Animal Body, that the several parts to be supply'd and nourish'd, would attract, imbibe and retain their proper Nutritive Matter, and repel or drive on any other sort of Matter, not fit for such a purpose; and these different Powers or Properties, in the several sorts of Matter which they observ'd to be so obvious and visible to the Senses, they call'd *Sympathy* and *Antipathy*, without knowing the Causes of it, or so much as pretending to reason from it *à priori*. And here therefore they could mean no more

more by it, than we do by *Centripetal* and *Centrifugal Forces*, or the mutual *Attraction* and *Repulsion* of the several parts of Matter. The most antient Philosophers and Physicians therefore had as clear and distinct Ideas of their *Sympathy* and *Antipathy*, and understood what they meant by it, as well as we do the *Gravity* and *Vis Inertiæ* of Bodies in general, the *Elasticity* of the *Air*, or the *Pressure* of *Fluids*, and the different degrees of *Attraction* in Bodies. And, 'tis more than probable, were these Gentlemen now living, and ask'd to explain themselves on this Subject, that they might tell us they would assign the Causes of what they called *Sympathy* and *Antipathy*, as soon as we had explained and assigned the Causes of any of the other Facts and sensible Appearances before mentioned; and that till we could do this, we should in reality be no wiser than they.

It must be own'd that this Doctrine was afterwards very much corrupted and abused, and apply'd to a thousand Cases, where it could have no place, as the *Peripatetick Philosophy* grew into Vogue, and came

came to be more and more celebrated in the *Schools*. For in this Philosophy, *Words* were never intended to signify any real Facts, Appearances or *Phænomena* in Nature, but only the unknown Causes, or internal Constitutions of Things. This indeed was a short way of talking, about every thing known or unknown, but a round-about way to Knowledge, as it never produced any. But as this cannot affect the more antient Physicians and Philosophers, or those who lived after *Aristotle's* time who still built their Knowledge of Nature upon Observation, Experiment and Fact, as much as if no such Philosopher had ever been born; so it is certain that no other real Improvement of natural Knowledge has ever been made, or ever can be made, on any other Plan whatsoever.

WHEN the *Antients* were mistaken, it was generally owing to want of clearer Facts or *Data* to reason upon; but the Moderns, by wrong Reasoning upon Facts, and drawing false Consequences from *Things* given, have run into more and grosser Errors, than had ever been known before. In short, the most *Antient Physicians*

sicians were very good *Modern Philosophers*, in every thing relating to their *Profession*, whatever they might be as to other parts of Nature; while the Generality of the *Moderns*, tho' very good Philosophers in other Respects, are yet, with regard to the Medical Art, in spite of all the *Newtonian* Principles and Discoveries, downright *Atomists* or *Aristotelians*.

THE Antients knew nothing of the Circulation of the Blood, from the Heart thro' the Arteries and back again by the returning Veins; nor of the particular Ducts thro' which part of the Chyle is conveyed from the Stomach to the Subclavian Veins. But the Moderns having made these Discoveries, let us consider some of the Fruits of it, and the Consequences they have drawn from it.

FROM the *Circulation* of the *Blood*, as a Fact given, it has been commonly concluded, that the Action of the Heart, in its alternate *Systole* and *Diastole*, is the whole Force and adequate Power, by which the Blood is moved in the course of its Circulation.

lation. Knowing therefore that the Blood Circulates, and presuming that the Heart is the moving Force or Power, this Power has been exactly computed, at a great expence of Geometry and Mechanism. And herein the Gentlemen, who have applied themselves to this, have succeeded so well and come so near together, that they have differed only about the Force of the Heart, in the proportion of 500000 to 1; for this, upon a just Computation, will be found to be nearly the Difference, between Dr. *James Keil*, and the famous *Borelli* in his Book *de Motu Animalium*. But in the mean while, might it not be as well to be quite ignorant of the *Circulation* of the *Blood*, as not to be able to apply it to better Purpose? Did not the Antients *Bleed*, when occasion required, before they knew any thing at all of the *Circulation* of the *Blood*? Nay, did they not use *Phlebotomy* with more Judgment and Success, by opening a Vein as near as possible to the Part affected; while the Moderns have absurdly run into the contrary Practice, against Fact and Experience, as well as the Reason and Nature of Things; by falsely concluding that 'twould

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be indifferent from what part of the Body Blood should be drawn, since, in consequence of the *Circulation*, the *Æquilibrium* of the Vital Fluid would necessarily be soon restored again. Or has the Knowledge of the *Circulation*, by any Use or Application whatever that has yet been made of it, at all improved the Art of Healing?

BUT farther, from the Discovery of the *Chyliferous Ducts*, which terminate chiefly in the left Subclavian Vein, tho' they are often found in the Right too, it has been concluded that the whole quantity of Chyle, and every thing that can be conveyed from the Stomach thro' the Lacteals, must pass *this way* into the Blood-Vessels; and that this *Matter* must afterwards be derived again from the Blood in the Arteries, by the Glandular Secretory Ducts, before there can be any such thing as *Animal Nutrition* or *Evacuation*. But as this is contrary to all the Phænomena of *Animal Nature*, and demonstratively false in Fact, it could not possibly have ever entered into the Heads of Men, who had not had the vast advantage of *Modern Discoverys* in Physick.

ANY Man, I think, who has made the least reflection upon this Matter, if not too strongly prejudiced, or accustomed to another way of thinking, must be convinced that the *Natural Evacuations*, in their increased or diminished Quantities, do not at all follow the Laws and Conditions of the *Sanguineous Circulation*, or the increased or diminish'd Velocity and *Momentum* of the Blood; but that one may be increased while the other is diminished, and produce their Effects reciprocally. In Inflammatory and Effluent *Fevers*, where the Velocity and *Impetus* of the Blood is greatest, the natural Secretions and Evacuations are generally greatly diminish'd. And, on the contrary, in the Paroxysms of *Diabetical*, *Hypochondriacal* and *Hysterick* Disorders, we often find a very great and extraordinary *Profluvium* of Urine, where the Circulation of the Blood is very low and languid, or almost quite suspended; which could not possibly happen, I think, if these Evacuations were made from the *Arterial Blood*, and depended on the Velocity and *Impetus* of that Fluid,

IN *Atrophys* we frequently see People, running off all their Flesh, till they are reduced to mere Skin and Bones, and yet the Blood-Vessels remain still full and turgid, and the Blood, upon opening a Vein, comes off with sufficient Force and Freedom, and there are no Symptoms, or Indications at all, of any Diminution or Defect of that Fluid.

IN a *Dropsy* every thing that is drank, or taken in of a fluid Nature, fills up and distends the Ventricles of the Glands, the Lymphatick Ducts, and Membranous Cells throughout the Body still more and more; while the quantity of Blood, upon the whole, is not at all increased, but rather much lessened and diminished: And *Bleeding*, in this Case, is so far from lessening or abating any such Glandular, Lymphatick or Membranous *Plethora*, that, on the contrary, it rather increases, strengthens and confirms it: And farther, in this Case such a *Plethora*, or Redundancy of Water, may be all drawn off, and discharg'd by *Urine*, *Stools*, *Sweating*, &c. without affecting
or

or altering the State of the Blood, so far as can be discovered, either as to its Quantity or Quality.

THESE Facts and Observations, to mention no more, are I think sufficient to demonstrate, that there is no such Intercourse and Communication between the Glands and Membranous Cells and the Blood, as is commonly Imagined; and that a Defect, or Redundancy, may happen in either independent of each other, and consequently that those Lacteals, which convey a certain portion of the Chyle from the Stomach, to be empty'd into the *Blood-Vessels*, may receive either more or less than their share, as well as those which are to carry off and convey the same to the *Breasts, Kidneys, Cutaneous Ducts, &c.* and this independent on each other, as the Recipients, leading to one part or the other, may either be too *Lax* and *Open*, or too much *Constringed* and *Obstructed*. And from hence it is, that we find some Persons and Constitutions very much inclined and disposed to collect and accumulate Blood, while they are still *Thin* and *Lean* in Flesh; and others to
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grow *Fat* and *Fleshy*, with a Scarcity and Defect of Blood at the same time. Which yet, as plain and evident as it is in Fact, I think, could not possibly happen upon the Modern *Hypothesis* of Secretion, or if the whole quantity of *Chyle* or *Nutrimment* from the Stomach, were to be conveyed and thrown into the Blood, before any other part could be supplied with the Same.

ANOTHER modern Discovery in Physick, as a Consequence of the former, is this, That there is no such thing as different *Fermentations*, *Digestions*, and *Separations* of *Liquors* in the Ventricles of the Glands, from different Degrees of *Heat* and *Motion*; but that all the variety of the different Secretions, is effected by a simple *Colature* from the Arterial Blood, thro' small Pipes of different Diameters, and which will admit of Fluid Particles of one Size, but not of another, without any *Glandular Concoction* whatsoever. Now if any body had a mind to look like a *Mechanician* and *Chemist*, without being one the *Belinian* Doctrine, would soon furnish him with Words that might sound very well;
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and a Man who is well versed in that *Hypothesis*, may possibly be thought a considerable Philosopher, while he is talking the greatest and most egregious Nonsense in the World. For tho' we see every Day, and in the whole Oeconomy and Process of Nature, very great Changes and Transmutations made upon Fluids by *Fermentation* and *Digestion*, under different Degrees of *Heat*, *Rarefaction* and *Intestine Motion*, yet no Man could ever observe any such Thing effected by any sort of *Colature* or *Straining* whatsoever. And when these Gentlemen will be pleased to give us any Instances of turning *Must* into *Wine*, *Wort* into *Beer*, or *Chyle* into *Milk*, *Urine*, *Bile*, &c. by *Straining*, it will then be time enough to consider this Matter farther; but, in the mean while, if they will not be convinced to the contrary themselves, I hope they will give me and some others leave to laugh at such an *Hypothesis*, at least, till they are better able to support it.

THE Antients, tho' they had not the use of *Microscopes*, the Method of *Injecting* the *Vessels*, and several other Helps with which

which Providence has favour'd us, yet they were very careful and diligent Observers of all the obvious sensible Appearances, or *Phænomena* of Nature, in the Animal Structure and Oeconomy. And from hence they form'd Judgments and Conclusions more certain and successful, concerning the Formation and Cure of Diseases, than ever the Moderns have done from a great number of most precarious and false *Hypotheses*, under the pretence of a better Application of Geometry, Mechanism and Philosophy, to Physick and the Animal Oeconomy. The pretended Fermentations of *Acids* and *Alkalys* in the Blood; the various Combinations of the Chemical Principles of *Salt*, *Sulphur* and *Mercury*, in the Body, and the Effects from thence arising; the motive Power of the *Animal Spirits*, together with their several *Suffocations* and *Explosions*, *Concentrations* and *Dissipations*; the *Specifick Transmutations* of morbid Matter, and the Miraculous Power of *Medicinal Corpuscles* upon the Blood; the mysterious Effects of *Straining*, or the Preparation of all the different Liquors of the Glands, by a Simple *Colature* from the Blood in the

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Arteries. These are some of the most prevailing *Hypotheses* which the Moderns have assumed and argued upon, as Facts, without the least Ground or Reason from any of the real Appearances or *Phænomena* of Nature: And, to which I shall here only add one more, as the Crown and Glory of all the rest, namely, that the *Blood*, in its Circulation, moves it self by means of the *Animal Spirits*, which are, at the same time, moved by the *Blood*. For, in this *Hypothesis*, the *Blood* cannot move till the Heart contracts, by the Influx of the *Animal Spirits* from the Nerves; and, on the other hand, the *Animal Spirits* cannot flow thro' the Nerves into the Heart, till they have been separated in the Brain, by the prior Motion or *Circulation* of the *Blood*. So that herein 'tis evident, that they are both supposed as the Antecedent Causes and Consequent Effects of each other; and the *Blood*, in this way of accounting for its Circulation, can have no Motion but what it communicates to, and returns upon it Self; and this against a constant Resistance, without any prior independent *Moving Force* at all. Which is just as good Sense
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as if any one should assign the Weight, Spring, or *Moving Force*, applyed to the Wheels, or Pullies, as the Cause of the Motion of a Clock, Watch, Crane, or other *Machine*, and at the same time suppose the Motion of the *Engine*, to be the Cause of the Weight, Spring, or *Moving Force*. But this, notwithstanding all the expence of Geometry and Mechanism that has been laid out upon it, by its great *Patrons* and Defenders, and its being so generally receiv'd on their *Authority*, as a first Principle in Physick, is an evident Impossibility.

THE first and best Philosophers and Physicians, who apply'd themselves to the Study of the *Animal Oeconomy*, by observing the great Alteration made upon our common Food, by *Fermentation* and *Digestion* in the Stomach, whereby a Liquor was prepared to be afterwards farther conveyed to the several Parts of the Body, while the Excrementitious Indigestible Parts of the Aliment were separated, forced forward, and thrown out of the Body; carryed this Reasoning, by Analogy of Nature, to the other Glands and Ventricles of the Body, where they supposed a farther *Concoction*

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might, in like manner, be made and different Liquors prepared and separated, under different Degrees of *Digestive Heat* and *Motion*, so as to answer the several Ends and Purposes of the *Animal Constitution*. And herein they argued right, and grounded their Principles upon the true Method and Oeconomy of Nature in all other like Cases. But how far the Moderns have mended this Theory, or any other practical Principle of the Antients, by any of the foregoing *Hypotheses*, or by their clearer Knowledge of Anatomy, I may leave any one to judge.

BUT, besides the Virtues, Properties or sensible Effects of Medicines, as they visibly promoted or restrained this or the other natural Evacuation, the first and most successful Students of this part of Nature, had another Class of *Powers* and *Properties* in things given, as they visibly and sensibly affected the *Animal Constitution*, with regard to the Primary or *Elementary Qualities*, as they chose to call them, of *Heat Cold, Moisture* and *Dryness*. Or which is the same thing, as Things given, whether

a Medicine or Diet, were found to *Heat* or *Cool*, *Moisten* or *Dry* the Solids in general. And upon this they founded their Notion of the four Principal Primary or Elementary Constitutions of *Hot* and *Dry*, *Hot* and *Moist*, *Cold* and *Dry*, and *Cold* and *Moist*. Where these primary Elementary Qualities were found to be so equally mix'd and contempered, as that any one of them did not abound or prevail against the rest, this was called the *Natural Temperature* or State of Health; For while these *Elementary Qualities* were duly tempered and equally blended together, the Body remain'd Sound and Well, and performed all its Functions regularly and in good Order; and no Disease or Distemperature could ever be observ'd, but upon the Prevalency of some one, or more, of these Qualities above the others: And from hence in every Disease the prevailing Humours were distinguished into *Blood*, *Phlegm*, *Choler* or *Bile*, and *Melancholy* or *Black Bile*: and the general Constitutions were from thence denominated, either *Sanguine*, *Phlegmatick*, *Cholerick*, or *Melancholy*, as this or that Humour prevail'd

or

or had the Ascendency in particular Persons.

Now this, I think, is plain Sense and talking very Intelligibly; and the Moderns, who have found out other *Hypotheses*, better Methods of Reasoning in Physick, and nearer Ways to Health, as the *Event* has plainly prov'd, cannot pretend to be Ignorant of what the Antients meant by *Blood*, *Phlegm*, *Choler* or *Bile*, tho' they have been mightily puzzled to know what was understood and intended by their Melancholick Humour or *Black Bile*. And yet he who does not understand this, must either never have practised Physick, or else never have made any Observations and Reflections on what he has seen and met with in Practice. For, in my Opinion, 'tis extreamly clear that the antient Physicians neither did, nor could, understand any thing else, by their *Melancholia* or *Bilis Atra*, but the Bile corrupted, vitiated, and degenerated from its natural State and Use; in which case it always turns *Black*, and becomes a peccant distempered Humour. It is true, indeed, that all the Humours by
Stagnation,

Stagnation, Corruption and Fermentation, may change their Original Colours and Qualities, as well as the *Bile*, which was as well known to the Antients as to the Moderns, and taken notice of by them accordingly; but yet this *Corrupt Bile*, when it prevails, is so very extensive in its Consequences, and productive of so many and great Diseases, even where no *Faundice* ensues, that it was justly taken notice of and distinguished, by them, as one of the Principal General *Morbid Constitutions*: And especially, as this Distemperature of the Bile naturally, and almost constantly, attends a *Cold* and *Dry* State and Habit of Body, or a prevalency of Cold and Dryness, above Heat and Moisture, in the General Constitution.

I am aware some trifling Objections may be made to what I have advanced here; but as they would all terminate in this, that the Antients could not always express themselves accurately enough to be understood by the Moderns; so in answer to them, without mentioning the particular Objections, it may be only said in general,
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that the Moderns, in this Case, have been equally culpable, in that they have not been always able to express themselves, with sufficient Clearness, to be understood by one another. But for any one gross Absurdity, or Falshood in Fact, which any Man shall produce from the *Antients*, about the Cause, Formation and Cure of Diseases; I will undertake, in defence of the *Moderns* upon this Article, to give him five.

THE *Antients* had, indeed, a particular Notion that the *Blood* is made in the *Liver*, to which *Viscus* they ascribed the Act of *Sanguification*. This Opinion has been perhaps justly rejected by the Moderns, tho' they have not been able yet to settle any thing in the room of it; and therefore have had no ground for the Laugh. The *Antients*, it seems, fell into this Mistake for want of a clearer Knowledge of Anatomy. Well, be it so; but how have the Moderns rectified this Error, by their farther Discoveries, and better Acquaintance with the Animal Structure and Oeconomy; or to what particular *Organ* do they ascribe this
Act

Act of Sanguification? Perhaps it may be answered, with some Triumph^r here, that the Case is now very plain, and that since the Discovery of the *Elasticity* of the Air, 'tis evident enough that the *Lungs* are the only proper Sanguifying Organs; where, by the Intromission of a fine *Elastick Aura*, these Globules are form'd and blown up. But this is a very strange Account of the Matter, indeed, since 'tis certain, in Fact, that these *Globules* are specifically heavier, instead of being lighter than the *Serum*. And consequently, that they cannot be Vesicles or Bubbles fill'd and blown up with Air. And had one therefore a mind to maintain the Argument, for the sake of the Jest, it would be no great difficulty, in my Opinion, to defend the *Liver* against the *Lungs*, in spite of all such Reasonings as this.

BUT he who would follow the Guidance of Nature, and build his Opinion herein on plain Facts and Observations, may perhaps see Reason to conclude, that the Act of *Sanguification* is not appropriated to any particular *Viscus* or Bowel,

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that

that the *Lungs* contribute only their share in the Operation, and that the Blood receives its peculiar Type and Form in the *Arteries*, where it undergoes the highest Degrees of *Heat*, *Impetus* and *Motion*.

FOR we may observe, in Old People, where the natural Heat, and Elastick Tone of the Solids are much impaired, that the Blood grows paler, fainter, and runs more into Water, and that the Globular Part or *Cremor* sensibly lessens in proportion to the *Serum*. And this likewise is remarkably the Case in a *Chlorosis*, or, indeed, any Obstruction of the *Menstrual Secretion* attended with *Chilliness*, *Lowness*, *Pallor* and *Languor*: In which Cases we often see the *Globules* almost lost, and the Blood is little else but *Serum*. But, by restoring the natural Heat, and strengthening the Elastick Tone of the Arteries, these Globules soon rise again, and the *Crassamentum* or *Cremor* is reduced to its natural and due State, whether this be done by any Internal Means or External only.

THUS

THUS it may likewise be observed, that People of *Hot, Biliose, and Sanguine* Constitutions, whose Fibres are more firm and tense, and where consequently the muscular Force and Action of the Solids is stronger and more vigorous, than in other *Temperaments*, have proportionally more *Cremor* in the Blood than others; and, in some high Inflammatory *Fevers*, where the Elastick Force of the Solids is still greater and more exalted, the Blood becomes almost all *Cremor*, and affords but very little *Serum* after it has stood many Hours in a cold Place. Now, from these Observations, to mention no more at present, it may perhaps be justly concluded, that the Blood receives this Form from the Heat and Elaboration it undergoes in the Arteries.

BUT to resume and consider a little farther the natural Constitutions, as depending on the Primary or *Elementary Qualities* above mentioned, it may be proper to take notice, that the true alterative Method of the Antients, consisted in regulating and moderating these natural Constitutions and primary Qualities. And this they did not

pretend to do by *Specifick Alteratives*, in the Modern Quack Sense, or by any *Occult Qualities*, or Magical Effect, of Medicines on the Blood, where People were not to know what they took, or after what manner they were to expect Relief, but by a skilful Direction and Regimen in the Use of those Things, which have, I know not for what Reason, been commonly called the *Non-Naturals*, such as *Diet, Air, Exercise, &c.* But I should rather chuse to call these the *Universals* or *Constitutionals*, because the Original Natural Constitutions and Primary Qualities do almost entirely, absolutely and universally depend upon them, so far as Moderating and Tempering them can fall under the Consideration of a Physician.

A *Flesh* and *Ale* Diet increases the Crassament of the Blood, and accumulates *Fat* more than any thing else; it oilifies and enriches the Blood, and promotes the Heat and Humidity of the Constitution, which is the Characteristick of that Temperament which by the Antients was call'd *Sanguine*. But when this Constitution becomes In-
temperate

temperate and Morbid, it is the Foundation of all those Diseases which are owing to an overgrowth of Fat, and a too thick and rich Blood.

A *Milk* and *Vegetable Diet*, join'd with *Water-Drinking*, encreases the *Serum* of the Blood more than the *Crassament*. It cools, refrigerates and moistens the Habit or Constitution, moderately contracts the Solids, and promotes the Alvine and Urinary Discharges. But it has not the same Effect on the Cutaneous Evacuations by *Sweat* and *Perspiration*, which it rather lessens and restrains. And yet, by joining this Regimen in Diet to a moderate use of warm Liquors, or such as contain a *Vinous Spirit*, any immoderate Check or Restraint of Perspiration may easily be prevented: As, on the other hand, *Vegetables* and *Water-drinking* are, in a good measure, Preventatives of the ill Consequences, which might otherwise follow, from the too free Use of a *Flesh* and *Ale* Diet.

THE Choice of *Air* is undoubtedly of the utmost Consequence to moderate and
reduce

reduce a Constitution, when it grows into any Intemperature ; and here the Constitution of the Air, with regard to the Primary Qualities above mentioned, compared with the Constitution of the Patient, will afford any Man a sure and unerring Rule in the choice of *Air*. For 'tis certain that any Error of Constitution ought to be rectified and reduced by the contrary Temper and Quality of the Air, and no body would chuse a *Hot Air* for a too *Hot Constitution*, or a *Cold Air* for a *Cold One*, and so of the Rest.

IN a *Phthisis*, or natural Weakness of the Lungs, the softest and warmest Air is to be chosen, provided it be not too Thick, *Moist* and *Boggy*. But in an *Asthma*, *Faundice*, Weakness and Relaxation of the *Nerves*, and almost in all thin declining Habits where the Lungs are sound, a thin, cool, dry and *Elastick Air*, is always best and most eligible. But Gross, Fat and Corpulent People can never be much mended by any Air, without a cooling attenuating Vegetable Diet and proper Exercise.

OF all Exercifes for Health, as well as Pleasure, nothing can stand in Competition with *Riding* and *Swimming*; which wonderfully brace the Nerves and Solids in general, reſtore their Elaſtick Tone, open Obſtructions, and promote the ſeveral natural Secretions and Evacuations, beyond any other *Gymnaſtick Regimen* whatſoever.

MODERATE *Sleep* is the great *Solamen* and Reſtorative of Nature, by which the Organs are warm'd, moiſtned and lubricated, and the ſeveral Springs of Motion wound up, and prepared for farther Action in the waking Hours. But in this Caſe exceſſive Indulgence of Sleep, or Overwatching and Want of Sleep, are equally injurious to, and produce different and contrary Effects upon, the Conſtitution. For *Exceſſive Sleeping* checks and reſtrains all the natural Secretions and Evacuations, weakens and relaxes the whole Animal Frame, deſtroys the Tone of the Muſcles, and induces ſuch a weak, cold, humid and flabby State of the Nerves, as threatens a *Palsy*; and frequently terminates in one; which I have more than once known to be the Conſequence of it.

ON

ON the other hand, *Overwatching* and the Want of natural Sleep, wears and wastes the whole Animal Constitution, heats the Blood, drys and contracts the Nerves, and, in fine, either kills with a *Fever*, attended with a *Phrensy*, or induces a *Mania*, *Lunacy*, or Distraction of some sort or other, as is but too commonly seen and experienced.

THE *Passions* have so great a share in the Constitutions and Diseases of the Body, that, in my Opinion, this ought to be reckoned one of the principal Provinces of Physick; and indeed, with a Saving to the Divines, I think Physicians are the fittest Persons to apply a proper Relief, under those great *Emotions* and *Perturbations of Mind*; which either arise from the Body at first, or are soon *materializ'd* by a communication with it. For these Passions are all either pleasing or painful Images, and have just the same Effect upon the Constitution, whether they arise from things without us, or have their Original from the Mind within.

'T IS evident that the pleasurable and painful Passions, have very different and even quite contrary Effects upon the Blood, Humours, and respective Organs of the Body, of which a Mechanical Account and Explanation, may be seen in the Ingenious Dr. *Morgan's Philosophical Principles of Medicine*; a Book that can never be too much studied by the young Physician, who intends to make a Figure in his Profession, and would build his Practice on plain Facts and indisputable Principles. To that Treatise, therefore, I shall refer the curious Reader; where, I can assure him, he will find this Subject touch'd with uncommon Delicacy, and see the Origin, and different Modifications, of the Passions beautifully described, and their Effects on the Animal Organism, in a strong and masterly manner, Anatomically delineated and Mechanically accounted for: Which makes it the less necessary for me to enter farther into the Theory of the Matter here.

'T IS evident in Fact that *Hope* and *Joy* warm the Blood, diffuse the natural Heat, raise the Pulse, and take off any Irritation

or painful *Stimulus* upon the Organs; and that *Fear* and *Grief* produce the quite contrary Effects to all these. But 'tis observable, that *Grief* is the most sinking, wasting, disanimating Passion of all; for *Fear* very often inspires the Person Affected, with a Resolution and Courage proportional to the apparent or apprehended Danger, and thereby arms him, with suitable Strength and Firmness, to encounter with the Difficulties before him.

Hope and *Joy* affect the Blood and Humours much after the same manner with *Vinous Spirits*, *Opiates*, and other such Exhilarating *Volatiles*; but *Grief* and *Fear* when they are strong and overbearing, with *Acids* and *Salts* upon the Stomach; *i. e.* they affect the Organs with Pain, lower the Pulse, repel the natural Heat, and disarm a Man of Spirit, Strength and Resolution, or, perhaps, keep him constantly awake and attentive to the painful disagreeable Scene, till he has quite lost his Senses. From this short Account of the Mechanical and most obvious Effects of the Passions, the Methods of relieving them when they grow

grow Exorbitant, may be easily drawn ; and there is no need that I should farther insist on it here. I had some thought indeed of being larger on the consideration of these *Constitutionals*, which we so improperly call *Non-Naturals* ; but the Bounds to which I must confine my Self, in this *Essay*, will not permit of a longer Detail at present ; and I must, therefore, refer a more particular and distinct Account of these Matters, to some fitter Opportunity.

S E C T. II.

Of the Materia Medica in general.

NOTWITHSTANDING the vastness of this Subject, I have no design to write a Volume upon it, nor do I think it necessary. But considering the Bulk to which the *Materia Medica* is grown, 'tis certainly, I think, high time to come to some proper Limitations and Restrictions concerning it, before it is quite run out into *Infinity*. For, to such an excessive Degree is this Matter grown already, that a Man had almost as good read over all the *Acts of Parlia-*

ment and Laws of *England*, as the Books of Physick, and the infinite Jumble and Confusion of Remedys of one sort or another. I am sensible, indeed, that the best and ablest Physicians among us, have very much reduced the *Materia Medica*, and brought it into a narrow Compass with respect to their own Practice; but this is no advantage to those who have not bought their Experience at so dear a rate, or who have not had opportunitys of making tryals themselves, but must still go on, in their Practice, upon the Judgments of such as have pretended to vast Experience before them, and who have, hereupon, cryed up a prodigious number of *Simple* and *Compound Remedies* as infallible, and fill'd large Volumes with them, when, perhaps, few or none of them, upon tryal, will be found to answer their Character. So that, amidst this huge Lumber, a young Practitioner must still be continually sifting out a Medicine, for his purpose, in most Cases, like a *Pearl* in the common *Rubbish*, or a Needle in a Heap of Sand.

THIS Uncertainty and Confusion in Physick, have not arisen from any of the obvious *Sensible Properties* or *Effects* of Medicines, as they affect the *Natural Evacuations* or the *Primary Constitutional Qualities*; for here the Practice stands upon a pretty good certainty: but only from the vain and fruitless search after *Specificks*, in the modern absurd Sense, or rather *Nonsense*, of the Word. This, as the Matter appears to me, has been the true Cause of all such Darkness and Obscurity, as we find the *Materia Medica* under to this very Day. I shall therefore, under this Section, lay down some Principles, well established in Fact, which may serve as so many certain Rules of Judgment, whereby the young Physician may govern himself in the choice Medicines, so as to render his Practice less precarious and uncertain, than it otherwise might be, upon his first setting out in the World. And herein, I shall proceed in this plain and natural Method, by considering how far the several Parts of the *Materia Medica*, as it now stands, are *Digestible* or *Indigestible*; in what *Cases* and under what *Circumstances*, they

they are capable of passing the *Lacteals* and mixing with the Blood; and what *Effects* may be expected from them, when they get there, which will take in all I intend to say on this Subject.

I. THEN it is certain, that nothing can pass the *Lacteals*, but what has been previously liquified, and reduced to an *Efflu-
vium*, or an exceeding fine, thin and rarefy-
ed *Vapour*. Not only the Fibrous *Solid*
Parts of our common Food, but likewise
the more fix'd *Oils* and *Salts*, with which
it abounds, are incapable of being dissolved,
liquified and volatiliz'd, by the *Digestive*
Heat and Action of the Stomach, and the
Attractive Power of the *Lacteals*; and
therefore the Residue of the Aliment, which
cannot be resolved, attenuated and fluxili-
zed, by such a degree of Heat and Motion
during the time of Concoction, are by Na-
ture precipitated, thrust forward and ejet-
ed out of the Body, thro' the common Al-
vine Excretory Ducts and Passages. Now,
if so considerable a Part of our common
Aliment, which has no stronger or closer
Texture than that of the *Vegetable* and
Animal

Animal Solids, cannot be so far dissolved and attenuated in the Stomach, as to be strain'd off thro' the Lacteals ; what shall we say to those vastly more solid and compact Substances which are often given as *Specifick Alteratives* ? or by what *Chemistry*, or *Mechanism*, can our Specificians pretend to convey such Substances as these into the Blood, without first rendering them, by some previous Operation, *Soluble* and *Fluxilizable* in Water ?

Sulphur, Ethiops, Cinnabar, Antimony, Mineral Bezoar, and universally all *Mineral Glebes* and *Metalline Calces*, communicate nothing to Boiling Water, but their Parts remain fix'd, inseparable and unalterable, against all the Power of such a degree of Heat and Motion ; which is yet vastly greater than can be produced, by the natural digestive Heat and Action of the Stomach, during the time of Concoction. Nay, if the Parts of any such solid cohering Substances be first of all broken and divided, as far as possible, by any Grinding or Trituration whatever, yet still, when they are afterwards committed to boiling Water,

Water, such a degree of Heat and Motion makes no Alteration, and cannot break or divide them farther: but, after all, their small st Parts, when examined by a Microscope, will appear to be many thousand times larger than any of the Orifices of the Lacteals, of which any Person may easily be convinc'd upon tryal. And consequently, he who expects to pass such Particles thro' the Lacteals into the Blood, even after their utmost Trituration, and consequent Maceration, in any Liquor which the Stomach can bear, will find himself deceived, and may as well attempt to thread a Needle with a Cable, or, to speak according to our English Translation, *It is as impossible as for a Camel to go thro' the Eye of a Needle.*

2. SUCH *Metalline Substances*, as above mentioned, may indeed be converted into the form of a *Salt*, by the Power of strong *Acids*, such as *Oil of Vitriol*, *Spirit of Nitre*, &c. as is well known to the Chemists; and in this Case they become Soluble in Water, and may be volatiliz'd in it, to any assignable degree of Tenuity. But then they

they are converted into *Poysons*, and cannot be thought fit *Alteratives*, unless the intended Alteration be Death.

I know that some of these *Metalline Acid Salts*, may be given in some Cases, as *Emeticks* and *Catharticks*: but then, as they are not intended to pass into the Blood, but to be presently thrown out of the Body together with such other morbid Matter as they derive from the remote Parts; so, in no case whatever, should they be exhibited as *Alteratives* in a long continued Course of Medicine, nor indeed us'd for any other purpose, but with the greatest Caution, and upon the utmost Necessity. They are edged Tools, and never to be meddled with without some Danger.

It is true indeed, that some Physicians have recommended even the alterative Power of *Poysons*, when the first Passages are guarded against them, and they are safely conveyed into the Blood and remote Recesses of the Body; but, upon what Principles this Practice is founded, I own, is beyond my Comprehension. Would any but

a Madman, trust an Enemy in his House, or Closet, that he knows would murder him in the open Street? or is it conceivable that the much thinner, finer and tenderer Coats and Membranes of the remote Glands and smallest Vessels, under such Recluses, should be able to bear the Power of so vast a *Stimulus*, better than the Stomach it self where there is so free and open a Discharge?

It is well known that *Poysoning* has been made an Art of, and reckoned a principal Part of Magick; and it has been reported of the *Indians* and some *Italians*, that they can give Poysons to operate in a certain assignable time, either longer or shorter, without producing any present ill Consequences when first exhibited. This method of Poysoning indeed, might, perhaps, receive vast Improvement from such a Notion of Alteratives; but, as this does not belong to *Physick*, I shall leave the consideration of it to others. And, since no Method has yet been discovered, of governing and directing the Venenous Particles, when got into the Habit, to the morbid

bid Matter only, or of preventing their baneful Impression, and deleterious Effects, on every part of the Animal Frame and Constitution ; I shall not only absolutely reject the internal Use of any such sort of Medicines, but draw one practical Conclusion from the whole which I take to be of great Importance ; *ſc.* That any Medicine, endued with a strong Emetick or Cathartick *Stimulus*, should never be suffered to lie long in the Body, or to pass the Lacteals where it is capable of it, but ought to be thrown off, as soon as possible, by the nearest Outlets and properest Excretorys ; together with such other Matter as it has derived and prepared for Evacuation.

BUT, besides those things that are absolutely Indissoluble, and cannot be conveyed into the Blood at all, and such as, by reason of their violent *Stimulus* and Corrosive Qualities, ought not to be trusted there, there is another sort of Medicines which might justly be expell'd the Province of Physick, under this notion of *Specifick Alteratives*, tho' they are not absolutely Indigestible, nor endued with any hurtful

Stimulus : What I here aim at, is the *Testacea*, *Resins*, *Boles*, and *Earths*, which will not impart a Tincture so as to be liquified and volatiliz'd with Water, or any other common potable Liquor.

ANY of these, when retain'd in the Body, must necessarily clog and obstruct the primary concoctive Organs, and do more Mischief, in a little time, than all the Advantages that can be expected from them. For, as they cannot be sufficiently resolv'd, liquified and sublimated, by the natural digestive Heat of the Stomach, so as to pass the Lacteals, they must needs foul and obstruct the first Passages, impair the Appetite, suppress the natural Heat, weaken the Force of the Muscles and Elastick Fibres in general, and, by continuance, induce an *Atrophy* of the worst sort, which arises from an Obstruction of the Lacteals, and a consequent depravation of Digestion and loss of Appetite.

BUT while I am exploding, and setting aside these things as *Alteratives*, or with regard to any good Effects they can have upon

upon the remote Glands and Membranous Vesicles, I would not be thought to maintain, or suppose, that they may not, at least some of them, be of use, in particular Cases, by their present Effects on the first Passages; provided they are extruded and thrown out of the Body, by Emeticks or Catharticks, as soon as they have answered their proper Intention. But this will be farther explained in some of the following Sections.

A N O T H E R principal thing, to be regarded in the Practice of Physick, is the *Doses* of Medicines, and the Manner of Exhibiting them. For 'tis certain, that where a Medicine is never so good and efficacious, and capable of answering the Intention of the Physician of it self; yet still this Effect may be eluded, and Nature deprived of the expected and intended Relief, by a wrong method of Exhibition, or by an Error committed, either in the *Quantities* or *Forms* of such Simple or Simples, on which the whole Intention of Cure depends.

A N D nothing, in my Opinion, has prov'd more prejudicial in the Practice of Physick, than

than the Stated *Canonical Doses* of Medicines, whether Simple or Compound. When once a Man imagines himself to be pinn'd down, in the giving of Medicines, to any stated Authoriz'd Doses, he must not go beyond it, tho' he should miss of his Intention and lose his Patient. And from hence one may venture to say, that more hurt has been done by trifling with Efficacious Medicines, and thereby losing Time, than by mistaking the Case, and directing things contrary to the Intention of Cure.

BUT this Error is oftneft committed in the Case of *Compounds*, which are commonly look'd upon and regarded as so many *Canons* in Physick; and consequently entitled to an absolute and implicit Obedience and Conformity. But, as this is certainly the prudential Orthodox Method of Trifling, and of doing a great deal of Mischief by doing no Good, so I dare be bold to say, that he who shall govern himself by these Rules, without using his own Judgment in varying the *Doses* and *Forms*, as occasion requires, will not only oftentimes lose his Patient, but his Reputation into the Bargain.

IT

IT is certain that the *Art of Composition* in Medicine, upon which all our common Dispensatorys are founded, arose with the *Specifick* or *Corpuscularian Philosophy*, and with that it must sink again; for, while the Practice stood upon this Chimærical Foundation, the Physician, for want of being acquainted with the Obvious Sensible Qualities and Effects of Medicines, and the Method that unassisted Nature took to relieve her self, under any particular Disorder, could have no other Intention in his Medical Processes, than to cure by *Magick* or *Occult Qualities*; and consequently must conclude that his chance of Success, always rose in proportion to the number of Ingredients in the *Compound Remedy*. But an Extemporaneous Practice is, certainly, the only true and rational Method of practising Physick; as this may, by the Physician who knows what he is about, be always accommodated to the great Variety and Complication of Symptoms in particular Cases: and nothing surely can be more Absurd and Irrational, than *Extemporaneous General Prescriptions*, or *Stated Canonical Compound Remedys*.

WHOEVER

WHOEVER considers the most common prevailing *Compounds*, will find them to be a general confused Jumble of Simples of very different Virtues and Properties; and, consequently, not containing, upon the whole, the real Power or Efficacy of any one Ingredient in the whole Composition. And if any such General Artificial Composition should happen to answer the Intention, in some particular Cases, it is more by chance than any thing else. And, in these *Canonical Compounds*, it may be pretty generally observed, that the *Simple* that gives it the Name, or from which the Denomination is taken, has the least share in the Composition, and might do much better alone, or with any easy extemporaneous Management.

BUT besides this Art of Composition, or confounding all Virtues and Properties together, there is another artificial Method of spoiling, or rendering Useless and Insignificant, the best and most Efficacious Simples, by pretending to preserve and secure their original native Effects and Virtues,

tues, in their *Distill'd Waters, Syrups, Confections* and *Conserves*.

Simple and *Compound Waters* drawn from Vegetables, are, for the most part, simply ineffectual as to any Intention for which they are given; and he, who makes use of them for any other purpose than as Vehicles, for Medicines of greater Efficacy, will always find himself disappointed; and, even for this purpose, the *Simple* or low *Distilled Waters*, not having Strength enough generally to keep from Mothering and Spoiling upon hand, are not half so good as *Common Water* or fresh *Small Beer*. But the *Compound Waters*, which are raised to a proof Spirit, may, some of them at least, do very well and be thought pleasant enough as a *Dram*, tho', I think, most of 'em are fitter to be sold at *Inns* and *Coffee-houses* than the Apothecarys Shops.

THE *Medicated Syrups* are, if possible, still more Insignificant; for, excepting a few of them which are intended as *Purgatives*, there is not one of them capable of answering any other Intention in Physick: and

since they are chiefly used in *Juleps*, as Specifick Sweetners by the Physician, and as *Sugar* it self would do much better and render the Medicine more agreeable and less nauseous, I think they may be very well left, to the Apothecary, for the purpose of particular Forms and to make up dry Substances into *Boles*, *Pills* and *Electuaries*.

Confections and *Conserves* may likewise answer some such use as to give an agreeable Relish, or to bring *Electuaries* to a due Consistence; but otherwise their Medicinal Virtues may very well be spared.

BUT, by *Decoctions*, *Infusions* and *Tinctures*, the Native Essential *Oils* and *Salts* of Simples may be extracted, so far as the natural Heat of the Stomach is capable of doing it. And, since all the proper Medicinal Virtues and Powers of the Simples themselves consists and resides in these *Salts* and *Oils*, by such a Preparation and Management, they may certainly be given to vastly greater Advantage than in their common *Gross Substances*. For by this all the
Efficacy

Efficacy of the Simples may be obtain'd fresh and pure, and to any given degree as the Case requires, so as to come up fully to the Intention. And hereby also the Stomach may be saved the Difficulty and Inconvenience of Solution, Digestion and Separation of the Parts; which is done before-hand in this way of Preparation, to the great assistance of Nature. For it cannot certainly be a rational Method, or good Contrivance, to commit *Gross, Solid and Strongly-Cohering Substances*, to a sick, weak and distemper'd Stomach, which cannot perhaps retain and digest any ordinary solid Food.

AND, from the same *Mechanism* and *Chemistry* of Nature, it must likewise follow, that all nauseous, sickening and loathsome Medicines, ought as much as possible to be avoided; that is, they ought absolutely to be avoided and never given or urg'd at all. For 'tis a hard Case, indeed, when a weak languid Patient must be forced, with Things which he could never have taken, in his best Health, without loathing Reluctancy and sensible Disorder.

THE Notion of *Specificks*, and the vain pretence of curing Diseases by the *Occult* Operation of Medicines upon the Blood, has been the true ground of all such Violence offered to Nature. For, if the Disease is to be cured by Things which are to affect the Blood, after a secret and inexplicable Manner, the Patient must believe and suffer for the sake of Health, against all sensible Appearances to the contrary: for, no doubt, the *Specifick* Remedys will do their Work, and faithfully execute their Commission, when they get into the Blood and arrive at the Seat of the Disorder, whatever Mischief or Injury they may occasion, to the Constitution, before they get there.

I have made these Observations, which appear to me plainly necessary, with regard to the general Use and Application of the *Materia Medica*, for the sake of such Gentlemen, only, as shall think it worth their while to form their Conduct upon the Reason and Nature of Things, and build their Practice on Facts and Experiments. And, if such Regulations should happen to
throw

throw out a great part of its many Particulars, I hope, however, it may serve to improve the *Art of Healing*, which is all I aim at.

S E C T. III.

Of Stimulating and Quieting Medicines.

THE Doctrine of *Stimulation* and *Pacification*, or the Effects of Pain and Pleasure, is of so vast an extent in Physick, and so essential to all *Animal Mechanism*; that I thought it a matter of the utmost Importance, to consider this part of the *Materia Medica*, in a distinct Section by itself.

Pain, or Uneasiness, is the universal *Stimulus*, or Principle of Motion in all *Animal Mechanism*. When it arises from the *Body* it has a material Cause, and tho' when it arises from the *Mind*, and has no other Cause, but the various Modifications of Good and Evil as they appear to the Judgment or Understanding; yet still it may

may be observ'd, that this mere Mental Pain, when impress'd on the *Animal Organism*, will have just the same Effect on it, as if it had originally arisen from some material *Stimulus*. And, in this Case, altering the Judgment and thereby exciting Pleasure, affects the *Animal Constitution*, much after the same manner, as a *Vinous Spirit*, *Volatile Salt*, *Opium*, or any other material Pacifyer. And this Consideration is of such consequence, that, without it, there can be no such Thing as either the Knowledge, or Application of *Animal Mechanism* to the purpose of my present Subject. But having observ'd this once for all, I shall confine my self, in what remains, to the Consideration of *Material Stimulation* and *Pacification*; where the Pain, or Pleasure, Stimulation, or Pacification, arise from without and may be ascribed to some material Cause.

'Tis well known that the active Principles of Bodies are their *Salts* and *Oils*; and that these variously affect the Animal Solids and Fluids, as they are *Pungent* and *Vellicating*, or *Softening* and *Lubricating*,
Fix'd

Fix'd or Volatile, Heating and Rarefying, or Cooling and Condensing. Nor are there any Operations of stimulating and quieting Medicines, but what may be understood and explained, by these their obvious sensible Properties or Mechanical Effects.

It may be observ'd farther, that an Organ may be stimulated, vellicated, or put to pain, either by an immoderate *Distention* or *Compression*: For, in either of these Cases, the original Structure and Conformation of the Organ or Vessel must be altered and broken, the natural Indication or Notification of which, in the Animal Constitution, is *Pain*. A *Stimulus*, therefore, may be either *Hot* or *Cold*; *i. e.* the stimulating Substance may either be a strong, rigid, condensative *Salt*, or a heating, rarifying or pungent *Oil*.

IN a cold condensative *Stimulus*, the Afflux and Weight of the Fluids, towards the Organs or Vessels stimulated, and the Evacuations depending thereon, will be increased. And when any such *Stimulus* is too strong and powerful, the Afflux of the Fluids

Fluids to the stimulated Parts, will overbear the contractile Restitutive Force of the Solids, in which Case the Parts must Swell, Mortify and Gangrene, or the *Stimulus* will act as a *Poyson*, and the Person thus affected dies, under all the Pain and Torture of such an Erosion, in the full force and vigour of his Senses, without any *Stupor* or Lethargick Symptoms.

BUT in a hot rarefactive *Stimulus*, the Symptoms will be very different, which I shall here briefly consider and explain. For, tho' the swelling of the stimulated Part will always be, *cæteris paribus*, in proportion to the quantity of the Fluid flowing to the Part, yet in this Case of a hot rarefactive *Stimulus*, the Organ or Vessel will be considerably more inflated and distended, by the Action of the heated rarefied Air included in the Fluid, and the circumjacent Vessels necessarily Compress'd and Constringed to a greater degree, and consequently the influx of their Fluids will be interrupted or lessen'd in proportion. Now the Effects of this Inflation or Distention, will be most remarkable and sensible, when it happens

happens in the Stomach, which is the principal and original Seat of the Action of Medicines. And here the heating rarefying *Oil*, acting upon this Organ, and inflating or distending it more or less, may in its Effects prove either *Sedative*, *Pacifying* and *Composing*; *Sicken*ing, *Surfeiting* and *Stimulating*; or *Stupifying*, *Lethargick* and *Mortal*; according to the different degree of such Inflation, and the different power of the Cause or Counterforce which it acts against.

LET us suppose then the Pulse lower'd, the natural Heat repelled, the Perspiration check'd, the Tyde of the vital Fluid sunk and depress'd, and consequently the Membranes of the Stomach, Intestines and *Viscera*, tumified and relaxed from a Redundancy and Surcharge of Fluids, occasioned and brought on by Fasting, Watching, hard Labour, immoderate Purging and Vomiting, and the like Causes. And 'tis well known that, in such Cases, a moderate quantity of Wine, or any generous heating and rarifying Liquor abounding with a *Vinous Spirit* or *Volatile Oil*, will give a very great

and sudden Relief, by diffusing the natural Heat, raising the Pulse, and restoring the Perspiration. If this warm *Effluvium*, and consequent Inflation of the Stomach, be carryed somewhat farther, all the foregoing Effects of it will be increased ; the Pulse will rise higher, the external Heat will be greater, and the augmented Perspiration will break out into Sweats ; which Sweats in such a Case are vastly beneficial, as they deterge and purge the cutaneous Glands and excretory Ducts, which were before obstructed by the Induration and Concretion of their contained Matter.

BUT, if this Distention of the Stomach shall be still increased, so as more strongly to compress the descending *Aorta* and *Viscera* contained in the *Abdomen*, and to throw a greater quantity of Blood upwards thro' the more patent Canals ; this Increase, by compressing the *Nerves* in their Origin, will fix them, and induce Sleep, which will be more or less sound, and of longer or shorter continuance, according to the different Power and Efficacy of the Cause. But when this Cause is raised to its highest Degree,

Degree, and acts with an overbearing Strength and Violence, it produces a *Lethargy*, *Apoplexy* and mortal *Stupor*, under which, the Person thus affected dies Senseless and Convulsed, especially in the lower Parts which derive their Blood from the descending Trunk of the *Aorta*; while the superior Muscles, which are overcharged with Blood, remain fix'd and in a manner motionless. But the direct contrary to all this happens, when a Person dies under the Power of any stimulating, *acid* or *saline Poyson*. And from hence it may appear, that *Alkaline* and *Acid* Poysons are a sort of Antidotes, or Counter-Poysons to each other: for as *Vinous Spirits* and *Volatile Oils* and *Salts*, especially *Opium*, mitigate the Violence of corrosive *Salts* and *Acids*, so do these restrain and moderate the other. And from hence it is evident, that Life or Death, Killing or Curing depend on the different Use of the same things; and what is a necessary *Antidote* in one Case or method of Exhibition, will under different Circumstances act as a deadly *Poyson*.

Emeticks and *Catharticks* differ only in the degree of their Vellication or *Stimulus*. If their stimulating Power be such, as to act immediately on the Stomach, before they can pass farther, they prove Emetick and are thrown off by Vomiting. But, where the rigid stimulating *Salts* or *Acids*, are intimately united with a soft lubricating *Oil*, in the essential Texture and Constitution of the Medicine it self, this qualifying *Oil* is not presently separated from the more ponderous fix'd *Oil* and pungent *Salts*; and consequently, the Stimulation of the Medicine may not be sensible in the Stomach, nor its Action perceiv'd till it comes into the Intestines where it operates as a Purge.

As *Emeticks* and *Catharticks* differ from each other, in the degree of their *Stimulus*, so they differ very considerably, among themselves, according to their different Strength or stimulating Power; or as their stimulating *Salts* and ponderous *Oils*, are more or less tempered and qualified with a soft Lymph and lubricating *Nutritious Oil*. But, of all Catharticks, the
strong

strong purgative *Resins* artificially drawn upon Spirit of Wine, are the most detrimental and attended with the worst Consequences; as the repeated Use of them most sensibly impairs the Appetite, obstructs the Lacteals, and fouls, clogs and weakens, the concoctive Organs and *Viscera* in general. And this, I think, one may lay down as a certain Rule, that where Nature has prepared a Medicine, it can never be much mended by Art.

Jalap in its natural state, is, perhaps, one of the best general *Purgatives* in the World. For tho' it possesses a sufficient stimulating Power, to answer the end of a Purge, even where strong and quick Purging is requisite; yet it abounds, at the same time, with *Phlegm* and *Oil* enough to correct and moderate its Operation, so as to render it safe as well as effectual: which good Properties the artificial *Resin* is deprived of; nor can any Art afterwards restore them again. If this *Cathartick* can be at all improv'd, it is by mixing and grinding the powdered Root with about a third part of *Calomel*, which makes it more attenuating,
dissolvent

diffolvent and deterfive, and, at the same time, lessens its *Stimulus* and the adhesive Quality of its *Resin*.

Gutta Gamba makes a quick, safe and excellent Purge in Dropsies, or where-ever strong Purging is required, when corrected with *Mercury*: and tho', in its natural State, it be too violent and stimulating in its Operation, to be given to any but grown Persons and those of strong and robust Constitutions; yet, under this management, I can affirm, from a constant course of Experience for many Years, that it may be exhibited, with great safety, to the tenderest Habits and most delicate Constitutions. And this indeed, in general, is the only method of correcting every thing possessed with a powerful *Stimulus*, or at least, as far as I have yet found.

Rhubarb is a very moderate Purgative, but a great *Astringent* and strengthner of the Stomach and Bowels, when they are too lax and flaccid, and when given with about a third part of *English Saffron*, is an excellent and noble Diuretick, in all great Relaxations

Relaxations of the Renal Glands and Urinary Passages. But when 'tis made up into Pills with *Quicksilver*, first minutely divided and incorporated with any proper Subject of the *Turpentine* kind, its purgative Quality is greatly strengthened and improved. For, where the first Passages are foul, and stuffed with a load of Matter which wants to be evacuated, *Rhubarb* thus given, will work as much as *Jalap* given alone, or in its natural State; and this without any Pain or Sicknes, or uneasy *Stimulus* whatsoever. And this, as I said before, is the true Art of correcting, not only *Emeticks* and *Catharticks*, but all other Medicines which would, otherwise, act by a too powerful and overbearing *Stimulus* on the Stomach and Intestines. For hereby the attenuating, dissolving and deobstruent Powers of the Medicine are increased and strengthened, and, at the same time, the *Stimulus* and Vellication on the great Organs lessened in the same proportion. And, indeed, a Physician ought never to suffer a Medicine to act by any powerful or too violent a *Stimulus*, so as to occasion excessive Pain; because, in this Case, it comes near to a
Poyson,

Poyson, and threatens a Mortification of Gangrene of the Part thus stimulated. And whenever this happens, accidentally and beside the Intention, the only effectual way to prevent farther Mischief, and to quiet and pacify the Tumult raised in the Constitution, is immediately to give a sufficient quantity of some powerful *Volatile*, especially *Opium*, to take off the Pain and, thereby, to prevent the fatal Effects of such a Stimulation.

Sudorificks act counter to *Emeticks* and *Catharticks*, and the Operations of these are, *cæteris paribus*, reciprocally proportional. Almost every body must have observed, that a *Sweat* raised stops a *Diarrhæa*; and that the checking of Sweat and Perspiration, occasions a *Diarrhæa* if the Intestines are not obstructed too at the same time. The Reason and Mechanism of this is very evident; for, as all Muscular, Mechanical or Necessary, Motion is propagated from the Heart *Undiquaque* in the Direction of the Arterial Blood, 'tis plain that when the Fluids move in a surplus Quantity from the Heart inwards towards the Stomach and Intestines,

testines, and their Evacuation that way is increased by any Cause whatsoever, the Discharges, in the contrary direction, towards the external Surface or cutaneous E-munctories, must be diminished in the same proportion, and so *vice versa* reciprocally. And hereupon is grounded the true rational Method of curing a *Diarrhœa*.

Sudorificks, Diureticks and Catharticks, and indeed all other Medicines universally, will operate differently according to the different Constitution in general, or the present occasional State of the *Animal Oeconomy*, with regard to the primary *Elementary Qualities* before mentioned. And here the different Powers of Heat and Cold, or of Rarefaction and Condensation, compared with the different state of the Solids and Fluids, or with the nature of the Disease as Effluent or Influent, must be the Physician's Guide. Every one knows that heating and cooling, rarefying and condensing Medicines, will either promote or restrain *Perspiration* and *Sweat*, in their place and turns, or under different Circumstances. No Man therefore, who knows

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what he is about, would attempt to promote *Sweat* and *Perspiration* by heating rarefying *Volatiles*, where the cutaneous Discharges had been obstructed and retained by a too great Efflux and diffusion of Heat before; or endeavour to promote this Evacuation, by cooling refrigerating *Salts* and *Acids*, in a low, languid, and depress'd State of the Blood and Animal Fluids. And yet, as wrong and irrational as this evidently appears to be, any Person, who is but moderately acquainted with the Modern Practical Physick Writers, especially those in the *Specifick* Way, must have observed, that very little regard has been had in Practice, especially in *Fevers*, to this plain, obvious, and indisputable Principle. — *Sudorificks* and *Diaphoreticks*, therefore, ought to be of one Sort or the other, or the Simples of each kind variously compounded, in extemporaneous Practice, from a careful and judicious Observation of the difference in the simple, or complicated, Symptoms. And this farther shews the vanity and absurdity of Stated *Canonical Compounds*, or *General Recipes*, under the infinite diversity and various complications of Diseases and

and their Symptoms. But yet I must needs say, notwithstanding the general Doctrine here laid down, that there is one Preparation of Nature, so nicely tempered and adjusted with respect to Heating and Cooling, that, in this intention of promoting *Perspiration* and *Sweat*, and thereby carrying off the foulnesses and impurities of the Glands, by the cutaneous Emunctories, is almost universally Beneficial : What I mean here is *Opi-um*, which, at all Times, and almost in all Cases, greatly promotes the *Sudorifick* and *Diaphoretick* Indications, whether the general Intention, and the Medicines with which it is join'd, be otherwise Heating or Cooling, Rarefying or Condensing.

BUT, where *Perspiration* and *Sweating* are necessary, and the Intention cannot otherwise be obtained, which often happens in Fevers, nothing can come into competition with *Blistering*, which is not only a safe, but a sure, Refuge on such occasions. And this is so effectual to the purpose here mentioned, that 'tis great pity it should ever be made the last Resort, after other Methods have been tryed in vain, and when,

perhaps this may come too late ; especially since, in the modern Method of directing and governing it, the most dreaded and usual mischievous Consequences of this Operation are so easily prevented.

To close this Section, I shall only make one Observation more, as a Matter of great importance ; and that is, that the *Metalline Salts*, or such as are prepared by impregnating and incorporating Metals, especially *Iron* and *Copper*, with their proper dissolving *Menstruums* whether *Acid* or *Alkaline*, are in many great Cases the most effectual Remedies of all ; as they may be directed to any of the natural Emunctories, by a skilful and judicious management, and become, then, the most certain and efficacious Dissolvents, Deobstruents and Detergents of any thing yet known. But a full Discussion of this cannot fall within the Bounds of a short Essay, tho' something farther will be observed upon it in the following Sections.

S E C T. IV.

Of Absorbents. •

TIS certain that some sorts of Substances, which are in themselves indigestible, and which can by no means pass the Lacteals, or mix with the Blood, do yet most powerfully attract, imbibe, and retain the morbid *Salts*, *Acids*, and *Sulphurs* or *Inflammatory Oil* which is often thrown on the first Passages, in Fevers and other Diseases of the putrefactive kind. And, on this account, such sort of Medicines may be of great use in Physick, provided that sufficient care be taken to extrude them out of the Body, as soon as they have done their work, and saturated themselves with the morbid Matter. By this means the peccant Humour is discharged and cast out, together with the Medicine that had attracted and imbib'd it. But nothing surely can be more irrational and absurd, than the giving such Medicines under the notion of their Digestibility and alterative Effects in the Blood; as if the Stomach could work Miracles,

Miracles and, by its natural Heat and Motion, dissolve that which no Art can do by degrees of Heat and Motion vastly greater. And besides, if such Substances were supposed capable of being dissolved and liquified in the Stomach, so as to be strain'd off through the Lacteals and Lymphatick Recipients, yet still, as in this Case they must necessarily carry the morbid *Fomes* along with them, which they had before imbib'd and retained, and thereby corrupt and poyson the whole Mass; so consequently the Practice, in this view, would be rather more absurd and irrational than before.

It may be here observed, that such sort of Substances are the best *Absorbents* as are good for nothing else, and have no other remarkable Property whatsoever. Such as *Chalk*, dry *Earths*, powdered *Shells*, burnt *Harts-horn*, and the *Mineral Glebes* which have been first deprived of their *Salts*, *Sulphurs* and *Mercury*, or stript of their active Qualities, by proper chemical Processes, such as *Diaphoretick Antimony*, *Mineral Bezoar*, &c. I cannot therefore wholly condemn these things,
as

as of no use at all in Physick, especially the *Minerals* before mentioned, as some very considerable Physicians have done, particularly that Prince of the Faculty the *Great and Learned Boerhaave*, because they could find them possessed of no active Qualities, and could easily prove them to be absolutely indigestible, and indissoluble in the Stomach, by the clearest and most convincing Experiments. For notwithstanding their Passiveness in other Respects, yet, 'tis certain, they still retain the common Power of Attraction. And as they attract, absorb, and retain *Salts, Acids* and *Sulphurs*, with the greater force and efficacy, for having been deprived and divested of them before; so, in this way of preparation of them, they may, I think, be deservedly reckoned some of the most efficacious *Absorbents* in the *Materia Medica*. But then, when the Use of such indigestible Substances is too long continued, which it always must be when they are directed under the Notion of *Alteratives*; or, where they are too long retained in the Body, and due care is not taken to get rid of them, as soon as they have answered their Intention; they must necessarily

rily produce Effects very mischievous to the Constitution, and such as may, in some Cases, be absolutely Irretrievable. And herein Dr. *Boerhaave's* Observations and Reasonings, upon this Subject, are certainly right.

S E C T. V.

Of Deobstruents.

DEOSTRUEENTS act by attenuating, liquifying, and deterging or carrying off the viscid Concretions of Matter, lodged in the Ventricles of the Glands and Membranous Cells, throughout the whole Body, but especially those of the Mesentery, and *Viscera* of the *Abdomen*, which are most liable to be thus obstructed, and where the Obstructions are commonly the most obstinate and invincible.

IN all Cases of *Obstructions*, great regard is to be had to the Nature and Quality of the obstructing and retained Matter; as whether it be a cold, sluggish, indurated *Phlegm*, or a heating, acrid, concreted *Oil*
and

and *Salt*. And as this is nothing, but observing the Primary *Elementary Qualities*, in the Constitution of every Disease; so it is only to be known, by carefully regarding the general Temperament of the Patient, the antecedent Causes by which the Obstruction may have been brought on, and the particular Symptoms and Appearances of the present morbid Constitution. And this Distinction is of such Consequence, that all true Practice depends upon it.

IN all Obstructions occasioned by a cold, unactive, indurated *Lymph* or *Phlegm*, where the Complexion is pale, the Pulse low, the natural digestive Heat impaired, and the Serum of the Blood very much abounding, in proportion to the Crassament; in such Cases, I say, *Steel*, join'd with the warm *Bitters* and *Aromatics*, is a great and noble *Deobstruent*. It raises the Pulse, strengthens the Digestion, diffuses the natural Heat, restores the elastick Tone of the Arteries, and, in a little time recovers the Crassament of the Blood to a wonder, after it had been almost quite lost and run into Water.

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BUT, on the other hand, when the Obstructions are occasioned by a hot, acrid, concreted *Oil* and *Salt*, tending to Erosion and Ulceration, or where the natural Heat is excessive, and the Crassament of the Blood is very predominant in proportion to the Serum. *Steel*, in this Case, can hardly be born at all, and will be sure to do more Hurt than Good. For as *Steel* is indisputably one of the warmest *Deobstruents* in the *Materia Medica*, so, it is from thence evident, it can have no place as a Medicine here, and can only, then, be proper, when the Obstruction proceeds from a contrary Cause, or, a cold, acid, *Condensative Coagulation*; and, in this Case, it is *instar omnium* and has not its equal.

BUT the great universal *Deobstruent*, which may be accommodated to all Cases and suited to all Constitutions, is *Mercury* or Quicksilver, which is deservedly stil'd by *Belloste* a *Miracle of Nature*, and the *greatest Gift of Providence in the whole Materia Medica*. This noble and divine Medicament, being first well cleansed and purifyed from its original *Arsenical Sulphur*

phur, and all other *Artificial Heterogeneous* Mixtures and Impurities, may be given, with the greatest safety, to the youngest, tenderest and most delicate Subjects: And, when under a skilful Management, may be directed to any of the natural Emunctories, so as to prove *Sudorifick, Cathartick, Diuretick, Expecterating* or *Salivatory*, in any degree, according to the Nature, Constitution and Appearances of Diseases, and their various Indications and Intentions of Cure: And this I can confidently affirm, from my own Experience, in repeated Trials of it upon my Self and others, for a Course of many Years together. I confess indeed, that I have never yet observ'd any great or sensible Effects from it, beyond the first Passages, when taken by Ounces at a time, in the *Vulgar* Method and *Quack* way of Prescription: And notwithstanding the Facts published, in the Controversy on this Subject, which seem to prove the contrary; yet, I am still of Opinion that the Relief obtained, in those Cases, was purely accidental, and owing rather to the casual Separation and Division of some part of the *Quicksilver* into its *Minutissima*, in its

Passage thro' the Stomach and Intestines, from the long continued repetition of the Doses, than to any natural or necessary Comminution of it, by the digestive Heat and muscular Action of those *Organs*. But, however it be, thus much, I think, is certain, that it does not so quickly, easily and surely pass the *Lacteals*, in that way of exhibiting it, as when 'tis antecedently divided by Art, and intimately combined and incorporated with other Bodies: And, in this way of Management, I may venture to affirm, it will seldom or never disappoint the judicious Physician's Intention, even in Diseases of the most obstinate *Chronick* kind, where any Relief is reasonably to be hoped for or expected. But a particular Consideration of this Matter, would open one into too large a Field for a short Essay, such as I only intend this to be. And besides, as I can give the World some Assurance of seeing this Subject more thoroughly handled by an abler Pen, I shall chuse to refer to that Treatise which, I believe, will be soon published, and in which, I am confident, the Reader will find his Account.

I shall therefore conclude this Section with one Remark more, by way of Caution to the *Quicksilver Devourers*, especially such of them as take vast quantities of it out of mere Whim and Wantonness, which is this; That tho' *Quicksilver* be in it self, perhaps, the most innocent thing in Nature, and absolutely incapable of hurting the most delicate Constitution, if taken pure and in moderate Quantities; yet, since it will intimately mix and incorporate with other Metals, especially *Lead* with which it is but too commonly adulterated, and which it will so strongly attract and retain, as not to be separated from it again by any sort of *Straining*, or other manual Operation: I say, since this is the Case, it may be worth such Persons while to consider, whether *Quicksilver* thus sophisticated, with a Metal endued with such noxious Qualities, may not, in a long Course of taking it, become a *Slow Poyson*, and do more future Mischief to the Constitution, than can be ballanced by any present sensible Relief or Advantage whatsoever.

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FOR my own part, I freely acknowledge, I dare not give it, even in small Quantities, for a long Time together, without being well assured of its Purity. And tho' a Person of Judgment may pretty well discover, upon view, from the degree of its *Lustre*, *Polish* and *Fluidity*, whether it be greatly adulterated or not; yet, I am very sure, from a great number of Experiments, that a sufficient quantity of noxious Particles may be so intimately blended with, and retain'd by it, as not only to deceive the nicest Eye, and elude all other Methods of Tryal, short of the *Fiery One*, but to do a great deal of Mischief, in a long Course of taking it in surplus Quantities according to the common Way: for which Reason, I never prescribe *Quicksilver*, but as *Reviv'd* from *Cinnabar*, or *Redistilled*, according to Art, after it is got into the Apothecary's Hands.

I had here some Thoughts of considering the *Materia Medica* more particularly, in another Section, and of ranging and disposing the most approv'd and efficacious Simples,

ples, in their most natural and proper Order. But I must postpone this, to another Opportunity, for the Reasons already given; and the rather because I intend, one Day or other, if I have Time and Leisure to make the necessary Experiments, to trouble the World with a new *Pharmacopœia* upon this Plan, in which I propose, accurately, to re-examine the whole *Materia Medica*, both *Chemically* and *Mechanically*, and to dispose the most efficacious Simples in every Intention, in distinct Classes, according to their most Obvious *Sensible Powers* and *Properties*, with regard to the Primary *Elementary Qualities* and *Natural Evacuations*: And to place them in such a natural Order, according to their different Degrees of Power and Force in each Intention, that none but *Empyricks*, or such as have little or no acquaintance with Philosophy, and the Animal Structure and Oeconomy, shall be easily capable of erring in the Use and Application of them.

IN this *Examen*, the Reader, I believe, foresees that the *Materia Medica*, which, in its present State is enormously Bulky, will

will be greatly reduced and brought into a very narrow Compass. But, however, because I would give no Offence to any Gentlemen of the Faculty, especially the *Specificians*, who may possibly think themselves Neglected, if not Injured, by this Method of treating the Subject; I farther intend, for their Use, and the Entertainment of others, tho' it will cost me no small Pains, to take due notice of the remaining *Simples*, which, for want of proper *Criteria*, cannot be entitled to a Place in the rational Part of this *Pharmacopœia*; and which have no claim to any Regard or Esteem at all, but on the Foot of *Magick* and *Specificism*. These I shall place in opposite Columns, and in distinct *Classes* likewise, according to their Traditional *Occult Virtues* and *Qualities* from the best Authorities. By this way of proceeding, the true State of the Controversy between the *Mechanical* and *Specific* Gentlemen will at once be exhibited to View; and, if I am not much mistaken, will appear in so strong a Light, that a Man of no great Abilities may easily determine on which Side the Weight of the Argument lies: And whether the *Newtonian*

nian Philosopher, who confines his Reasonings to plain Facts and just Experiments, or the *Corpuscularian* and *Rosicrucian*, who is led by his Imagination into all the Lengths of Whimsy and Enthusiasm, is like to prove the better and more useful Physician.

UNDER this Article likewise, it will clearly appear, from the manifest Contradiction of the Authorities produced in the course of the Evidence, that for one true Fact, upon Record, in the History of *Specificism*, you have ten Falsities; that the Argument, therefore, from *Authority* only, has as little Weight in *Physick* as in *Divinity*; and consequently, that the *Free-Thinker*, in the one Profession as well as in the other, has ten times a better chance of being in the Right, in all Cases whatsoever, than the *Free-Believer* or *Enthusiast*.

F I N I S